

STN-Structure Search

4/24/06

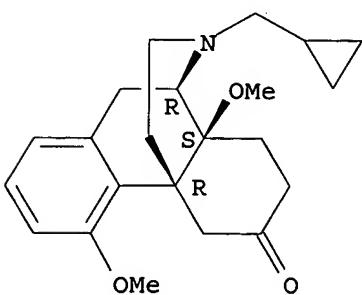
10/519,388

=> d ibib abs hitstr 1-160

L4 ANSWER 1 OF 160 CAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 2006301807 CAPLUS
 TITLE: Methods for regulating neurotransmitter systems by inducing counteradaptations
 INVENTOR(S): Michalow, Alexander
 PATENT ASSIGNEE(S): USA
 SOURCE: PCT Int. Appl., 97 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2006034343	A2	20060330	WO 2005-US33826	20050923
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW	RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
US 2006069086	A1	20060330	US 2005-234850	20050923
PRIORITY APPLN. INFO.:			US 2004-612155P	P 20040923
AB	The present invention relates to methods for regulating neurotransmitter systems by inducing a counteradaptation response. According to one embodiment of the invention, a method for regulating a neurotransmitter includes the step of repeatedly administering a ligand for a receptor in the neurotransmitter system, with a ratio of administration half-life to period between administrations of no greater than 1/2. The methods of the present invention may be used to address a whole host of undesirable mental and neurol. conditions.			
IT	118111-54-9, Cyprodime RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (regulating neurotransmitter systems by inducing counteradaptations by repeatedly administering neurotransmitter receptor ligands to treat mental and neurol. disorders and combination with other agents)			
RN	118111-54-9 CAPLUS			
CN	Morphinan-6-one, 17-(cyclopropylmethyl)-4,14-dimethoxy- (9CI) (CA INDEX NAME)			

Absolute stereochemistry.

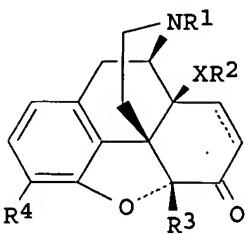


Answers
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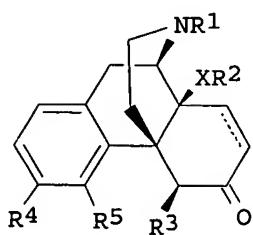
L4 ANSWER 19 OF 160 CAPIUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2004:41476 CAPIUS
DOCUMENT NUMBER: 140:111568
TITLE: Method for production of morphinan derivatives and the quaternary ammonium salts thereof substituted in position 14, and use thereof as highly-active analgesics or also as opioid antagonists
INVENTOR(S): Schmidhammer, Helmut; Spetea, Mariana; Schuetz, Johannes; Greiner, Elisabeth; Schuellner, Falko; Sailer, Bettina; Stuebegger, Kurt
PATENT ASSIGNEE(S): Austria
SOURCE: PCT Int. Appl., 114 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004005294	A2	20040115	WO 2003-EP6866	20030627
WO 2004005294	A3	20040513		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
DE 10229842	A1	20040205	DE 2002-10229842	20020703
CA 2491689	AA	20040115	CA 2003-2491689	20030627
AU 2003246627	A1	20040123	AU 2003-246627	20030627
EP 1554282	A2	20050720	EP 2003-762539	20030627
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
US 2005182258	A1	20050818	US 2003-519388	20030627
CN 1665819	A	20050907	CN 2003-815881	20030627
JP 2006500326	T2	20060105	JP 2004-518608	20030627
PRIORITY APPLN. INFO.:			DE 2002-10229842	A 20020703
			WO 2003-EP6866	W 20030627

OTHER SOURCE(S): MARPAT 140:111568
GI



I



II

AB The invention relates to a class of morphinan compds. I [R1 = C1-6-alkyl, C2-6-alkenyl, C2-6-alkynyl, C3-16-cycloalkyl, C7-16-arylalkyl,

10/519,388

Maryland School of Pharmacy, Baltimore, MD, USA
SOURCE: NIDA Research Monograph (2003), 183 (Problems of Drug Dependence 2002), 152-169
CODEN: MIDAD4; ISSN: 0361-8595

PUBLISHER: National Institute on Drug Abuse
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The results of a five-year (1997-2002) analgesic and stimulant/depressant testing program, conducted by the Drug Evaluation Committee of the College on Problems of Drug Dependence, are presented. The names of the compds. evaluated, and their mol. structures and a summary of their in vivo and in vitro data are also included.

IT 674347-23-0
RL: ADV (Adverse effect, including toxicity); BSU (Biological study, unclassified); PAC (Pharmacological activity); BIOL (Biological study) (biol. evaluation of compds. for their phys. dependence potential and abuse liability)

RN 674347-23-0 CAPLUS

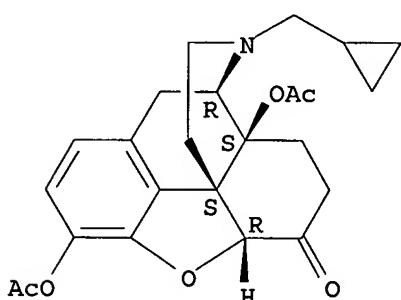
CN Morphinan-6-one, 3,14-bis(acetyloxy)-17-(cyclopropylmethyl)-4,5-epoxy-, (5 α)-, ethanedioate (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 92398-19-1

CMF C24 H27 N O6

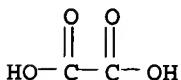
Absolute stereochemistry.



CM 2

CRN 144-62-7

CMF C2 H2 O4



REFERENCE COUNT: 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 28 OF 160 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2003:678621 CAPLUS

DOCUMENT NUMBER: 139:219311

TITLE: Tamper-resistant transdermal opioid delivery devices
INVENTOR(S): Shevchuk, Ihor; Cassidy, James P.; Reidenberg, Bruce;
Sharp, Dale E.; Kupper, Robert J.

PATENT ASSIGNEE(S): Euro-Celtique, S.A., Luxembourg

SOURCE: PCT Int. Appl., 46 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

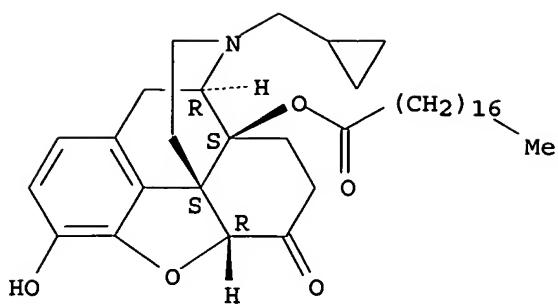
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003070191	A2	20030828	WO 2003-US4999	20030219
WO 2003070191	C1	20040610		
WO 2003070191	A3	20040910		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
US 2004033253	A1	20040219	US 2003-366394	20030214
AU 2003216321	A1	20030909	AU 2003-216321	20030219
EP 1476141	A2	20041117	EP 2003-742830	20030219
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
JP 2006502967	T2	20060126	JP 2003-569151	20030219
PRIORITY APPLN. INFO.:				
		US 2002-357139P	P	20020219
		US 2002-357141P	P	20020219
		WO 2003-US4999	W	20030219

AB This invention relates to a tamper-resistant transdermal-delivery device comprising an opioid, or its salt, and an acyl opioid antagonist, or a salt. The transdermal-delivery device allows an analgesically effective amount of the opioid, or a salt, to be transdermally administered to a patient. The invention further relates to methods for treating or preventing pain in a patient comprising contacting the skin of a patient with the transdermal-delivery device of the invention for an amount of time sufficient to treat or prevent pain. Thus, 3-(p-anisoylnaltrexone) (I) was prepared by the reaction of naltrexone-HCl with p-anisoyl chloride in 10% NaHCO₃ solution. The base was converted to its HCl salt. Thus, an aqueous gel contained EtOH 22%, hydroxyethyl cellulose 1.9, anhydrous fentanyl 1.0, I 20.0, and water to 100% by weight. This gel was loaded onto a reservoir-type transdermal delivery polymeric device.

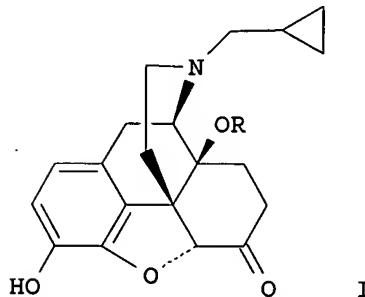
IT 111129-16-9 586364-74-1 586364-76-3
 586364-86-5 586364-88-7 586364-99-0
 586365-00-6 586365-08-4 586365-10-8
 586365-20-0 586365-22-2 586365-32-4
 586365-33-5 586365-42-6 586365-54-0
 586365-56-2 586365-67-5 586365-69-7
 586365-81-3 586365-83-5 586365-93-7
 586365-95-9 586366-04-3 586366-06-5
 586366-29-2 586366-31-6 586366-42-9
 586366-44-1 586366-55-4 586366-57-6
 586366-68-9 586366-70-3 586366-80-5
 586366-82-7 586367-07-9 586367-08-0
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (tamper-resistant transdermal opioid delivery devices)

RN 111129-16-9 CAPLUS
 CN Morphinan-6-one, 14-(3-carboxy-1-oxopropoxy)-17-(cyclopropylmethyl)-4,5-
 epoxy-3-hydroxy-, (5α)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L4 ANSWER 29 OF 160 CAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 2003:661396 CAPLUS
 DOCUMENT NUMBER: 140:27951
 TITLE: Effect of 14-O-benzylation on the opioid receptor affinity and antagonist potency of naltrexone
 Schuellner, Falko; Meditz, Ruth; Krassnig, Roland;
 Morandell, Guenther; Kalinin, Valery N.; Sandler,
 Ellen; Spetea, Mariana; White, Angela; Schmidhammer,
 Helmut; Berzetei-Gurske, Ilona P.
 AUTHOR(S):
 CORPORATE SOURCE: Division of Pharmaceutical Chemistry, Department of Pharmacy, University of Innsbruck, Innsbruck, A-6020, Austria
 SOURCE: Helvetica Chimica Acta (2003), 86(7), 2335-2341
 CODEN: HCACAV; ISSN: 0018-019X
 PUBLISHER: Verlag Helvetica Chimica Acta
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 OTHER SOURCE(S): CASREACT 140:27951
 GI



AB The 14-O-benzylnaltrexones I ($R = \text{PhCH}_2, 2\text{-MeC}_6\text{H}_4, 2\text{-ClC}_6\text{H}_4, 3\text{-ClC}_6\text{H}_4$) were prepared from naltrexone in several steps. The novel compds. were biol. evaluated in radioligand binding and in [^{35}S]GTP γ S functional assays in comparison to the reference compound naltrexone. In the binding assay,

compds. I exhibited preference for κ opioid receptors, while the parent compound naltrexone shows preference for μ receptors. In the functional assay, μ antagonist potency of compds. I was in the range of naltrexone, while κ antagonist potency was considerably higher for most novel compds. in comparison to naltrexone.

IT 633303-32-9P 633303-33-0P 633303-34-1P
 633303-35-2P 633303-40-9P 633303-41-0P
 633303-42-1P 633303-43-2P

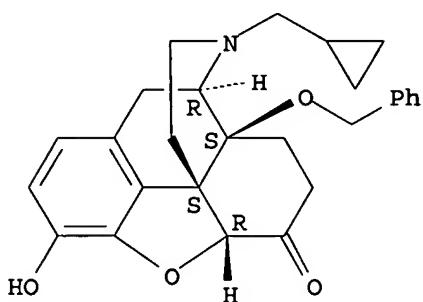
10/519,388

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(preparation of benzylnaltrexones and effect on opioid receptor affinity and antagonist potency)

RN 633303-32-9 CAPLUS

CN Morphinan-6-one, 17-(cyclopropylmethyl)-4,5-epoxy-3-hydroxy-14-(phenylmethoxy)-, (5 α)- (9CI) (CA INDEX NAME)

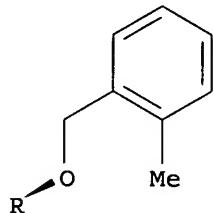
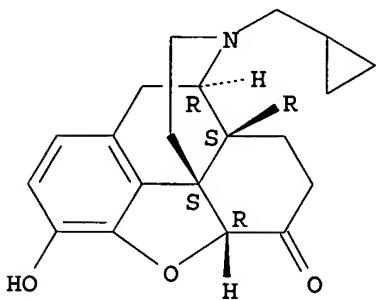
Absolute stereochemistry.



RN 633303-33-0 CAPLUS

CN Morphinan-6-one, 17-(cyclopropylmethyl)-4,5-epoxy-3-hydroxy-14-[(2-methylphenyl)methoxy]-, (5 α)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



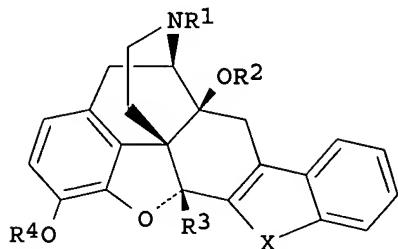
RN 633303-34-1 CAPLUS

CN Morphinan-6-one, 14-[(2-chlorophenyl)methoxy]-17-(cyclopropylmethyl)-4,5-epoxy-3-hydroxy-, (5 α)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

REFERENCE COUNT: 25 THERE ARE 25 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 37 OF 160 CAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 2002:827072 CAPLUS
 DOCUMENT NUMBER: 138:56114
 TITLE: Synthesis and Biological Evaluation of
 14-Alkoxymorphinans. 17. Highly δ Opioid
 Receptor Selective 14-Alkoxy-Substituted Indolo- and
 Benzofuromorphinans
 AUTHOR(S): Schuetz, Johannes; Dersch, Christina M.; Horel,
 Robert; Spetea, Mariana; Koch, Martin; Meditz, Ruth;
 Greiner, Elisabeth; Rothman, Richard B.; Schmidhammer,
 Helmut
 CORPORATE SOURCE: Department of Pharmaceutical Chemistry, Institute of
 Pharmacy, University of Innsbruck, Innsbruck, A-6020,
 Austria
 SOURCE: Journal of Medicinal Chemistry (2002), 45(24),
 5378-5383
 CODEN: JMCMAR; ISSN: 0022-2623
 PUBLISHER: American Chemical Society
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 OTHER SOURCE(S): CASREACT 138:56114
 GI

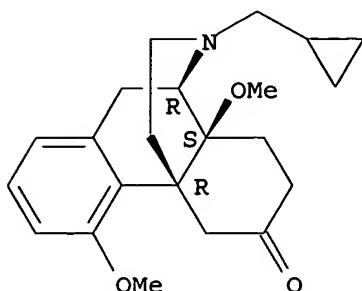


I

AB 14-Alkoxy analogs of naltrindole and naltriben differently substituted in positions 5 and 17 and at the indole nitrogen [compds. I (R1 = CPM, R2 = CH2Et, R3 = R4 = H, X = NCH2Et; R1 = allyl, R2 = Me, R3 = R4 = H, X = NMe; R1 = CH2Et, R2 = Me, R3 = R4 = H, X = NMe; R1 = R2 = allyl, R3 = R4 = H, X = N-allyl; R1 = allyl, R2 = CH2C6H2Cl-2, R3 = R4 = H, X = NCH2C6H2Cl-2; R1 = CHM, R2 = Me, R3 = R4 = H, X = NH; R1 = CPM, R2 = Et, R3 = R4 = H, X = O; R1 = Me, R2 = CH2Et, R3 = Me, R4 = H, X = NH; R1 = Me, R2 = isoamyl, R3 = Me, R4 = H, X = NH; R1 = CPM, R2 = CH2Et, R3 = Me, R4 = H, X = NH; R1 = 2-phenylethyl, R2 = Et, R3 = Me, R4 = H, X = NH; R1 = CBM, R2 = Et, R3 = Me, R4 = H, X = NH; R1 = allyl, R2 = Me, R3 = R4 = H, X = NH; R1 = allyl, R2 = Et, R3 = R4 = H, X = NH; R1 = allyl, R2 = Et, R3 = R4 = H, X = O; R1 = R2 = R3 = Me, R4 = H, X = NH; R1 = Me, R2 = Et, R3 = Me, R4 = H, X = NH; CPM = cyclopropylmethyl; CBM = cyclobutylmethyl; CHM = cyclohexylmethyl)] have been synthesized in an effort to enhance the δ potency and/or δ selectivity and in order to further elaborate on structure-activity relationships of this class of compds. Introduction of a 14-alkoxy instead of the 14-hydroxy group present in naltrindole resulted in somewhat lower δ binding affinity, while in many cases [compds. I (R1 = R2 = allyl, R3 = R4 = H, X = N-allyl; R1 = CPM, R2 = Et, R3 = R4 = H, X = O; R1 = CPM, R2 = CH2Et, R3 = Me, R4 = H, X = NH; R1 = allyl, R2 = Me, R3 = R4 = H, X = NH; R1 = allyl, R2 = Et, R3 = R4 = H, X = NH; R1 = R3 = Me, R2 = Et, R4 = H, X = NH) and HS 378] the δ

NAME)

Absolute stereochemistry.



REFERENCE COUNT: 51 THERE ARE 51 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 55 OF 160 CAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 1999:33058 CAPLUS
 DOCUMENT NUMBER: 130:182631
 TITLE: Synthesis and biological evaluation of 14-alkoxymorphinans. 16. 14-O-Alkyl derivatives of the μ opioid receptor antagonist cyprodime
 Schmidhammer, Helmut; Krassnig, Roland; Greiner, Elisabeth; Traynor, John R.
 AUTHOR(S):
 CORPORATE SOURCE: Institute of Pharmaceutical Chemistry, University of Innsbruck, Innsbruck, A- 6020, Austria
 SOURCE: Heterocycles (1998), 49, 489-498
 CODEN: HTCYAM; ISSN: 0385-5414
 PUBLISHER: Japan Institute of Heterocyclic Chemistry
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 AB The 14-O-benzyl derivs. of cyprodime and 3-hydroxycyprodime were synthesized in several steps from 3-desoxynaltrexone and naltrexone, resp. In the mouse vas deferens preparation it was found that a 14-O-benzyl group could enhance μ opioid receptor affinity in cyprodime while the μ affinity of 3-hydroxycyprodime was not changed.
 IT 220556-48-9P 220556-49-0P
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
 (synthesis and biol. evaluation of 14-O-benzyl derivs. of cyprodime)
 RN 220556-48-9 CAPLUS
 CN Morphinan-6-one, 17-(cyclopropylmethyl)-4-methoxy-14-(phenylmethoxy)-, hydrochloride (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

interfered with anal. of morphine. 3-Monoacetylmorphine, a minor product of derivatization of morphine, prevented use of the abundant m/z 285 ion of derivatized D3-codeine as a qualifying ion in quant. assays. The acetic anhydride derivative of morphine cannot be distinguished from the corresponding derivative of the heroin metabolite 6-monoacetylmorphine.

IT 70509-92-1 139933-52-1

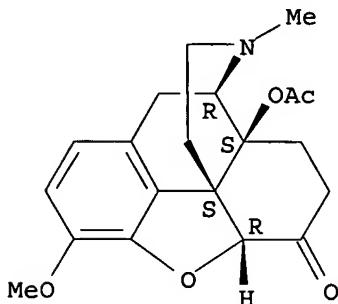
RL: ANST (Analytical study)

(interference from, in codeine and morphine forensic determination in human urine by gas chromatog.-mass spectrometry)

RN 70509-92-1 CAPLUS

CN Morphinan-6-one, 14-(acetyloxy)-4,5-epoxy-3-methoxy-17-methyl-, (5 α)- (9CI) (CA INDEX NAME)

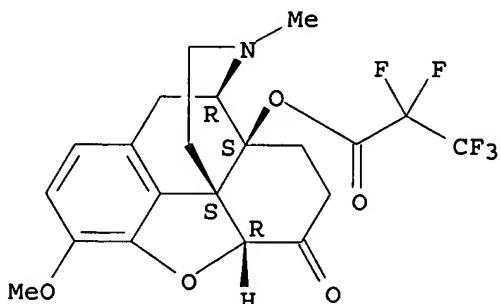
Absolute stereochemistry.



RN 139933-52-1 CAPLUS

CN Morphinan-6-one, 4,5-epoxy-3-methoxy-17-methyl-14-(2,2,3,3,3-pentafluoro-1-oxopropoxy)-, (5 α)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L4 ANSWER 85 OF 160 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1992:152106 CAPLUS

DOCUMENT NUMBER: 116:152106

TITLE: Synthesis of 6-methoxymethylmorphinol

AUTHOR(S): Valhari, M. U.; Rahman, A. U.; Memon, M. U.; Nachnani, F. C.; Khan, M. Y.

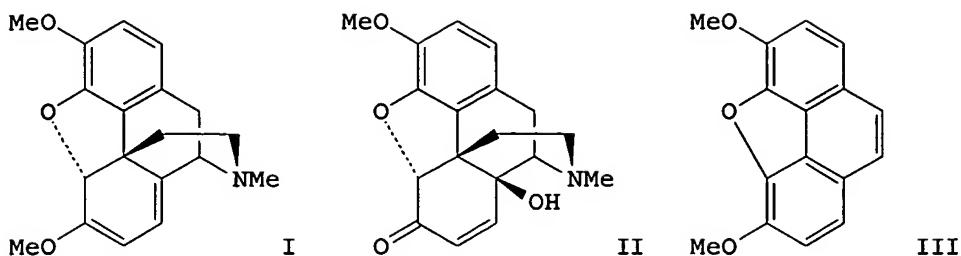
CORPORATE SOURCE: Inst. Chem., Univ. Sindh, Jamshoro, Pak.

SOURCE: Journal of the Chemical Society of Pakistan (1991), 13(3), 169-73

DOCUMENT TYPE: CODEN: JCSPDF; ISSN: 0253-5106

LANGUAGE: Journal

GI English



AB Treating thebaine I with H₂O₂ in AcOH gave 14-hydroxycodeinone II which underwent sequential methylation with Me₂SO₄ and hydrolysis with 30% aqueous NaOH to give 14-hydroxycodeinone methine. The latter, when treated with MeI and KOH in DMSO 2.5 h gave the title compound III. A mechanism for this transformation is discussed.

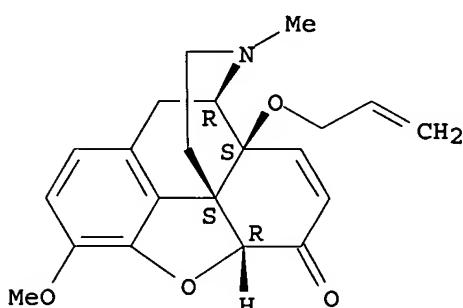
IT 139450-82-1P

RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

RN 139450-82-1 CAPLUS

CN Morphinan-6-one, 7,8-didehydro-4,5-epoxy-3-methoxy-17-methyl-14-(2-propenyoxy)-, (5α)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L4 ANSWER 86 OF 160 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1992:59709 CAPLUS

DOCUMENT NUMBER: 116:59709

TITLE: Preparation of naloxone and naltrexone esters for erythrocyte encapsulation

INVENTOR(S): Guillaumet, Gerald; Ropars, Claude; Meunier, Jean Claude

PATENT ASSIGNEE(S): Centre National de la Recherche Scientifique, Fr.; Fondation Nationale de Transfusion Sanguine

SOURCE: Fr. Demande, 21 pp.

CODEN: FRXXBL

DOCUMENT TYPE: Patent

LANGUAGE: French

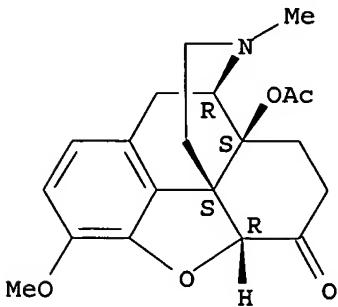
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
FR 2657350	A1	19910726	FR 1990-613	19900119
FR 2657350	B1	19920515		
CA 2034552	AA	19910720	CA 1991-2034552	19910118
EP 442769	A2	19910821	EP 1991-400127	19910121
EP 442769	A3	19920212		

(5 α) - (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L4 ANSWER 115 OF 160 CAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 1983:179727 CAPLUS
 DOCUMENT NUMBER: 98:179727
 TITLE: 17-Cyclopropylmethyl-3-hydroxy-14-methoxy-
 7- α -methylmorphinan-6-one
 INVENTOR(S): Ghosh, Anil Chandra; Razdan, Raj Kumar
 PATENT ASSIGNEE(S): Miles Laboratories, Inc., USA
 SOURCE: Eur. Pat. Appl., 24 pp.
 CODEN: EPXXDW
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 68384	A1	19830105	EP 1982-105424	19820621
EP 68384	B1	19850123		
R: AT, BE, CH, DE, FR, GB, IT, LI, NL, SE				
US 4370333	A	19830125	US 1981-278760	19810629
CA 1172251	A1	19840807	CA 1982-403504	19820521
AT 11410	E	19850215	AT 1982-105424	19820621
JP 58008067	A2	19830118	JP 1982-106278	19820622
PRIORITY APPLN. INFO.:			US 1981-278760	A 19810629
			EP 1982-105424	A 19820621

OTHER SOURCE(S): CASREACT 98:179727

GI For diagram(s), see printed CA Issue.

AB The analgesic title compound (I) was prepared in 11 steps from 14-hydroxycodeinone via ring cleavage of the epoxymorphinanone II. The analgesic-narcotic antagonist ED50/AD50 was 0.96 mg/kg.

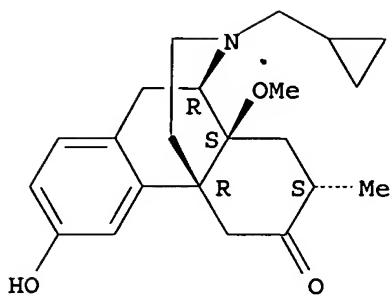
IT 85623-87-6P

RL: SPN (Synthetic preparation); PREP (Preparation)
 (preparation and analgesic and narcotic antagonist activity of)

RN 85623-87-6 CAPLUS

CN Morphinan-6-one, 17-(cyclopropylmethyl)-3-hydroxy-14-methoxy-7-methyl-,
 (7 α) - (9CI) (CA INDEX NAME)

Absolute stereochemistry.



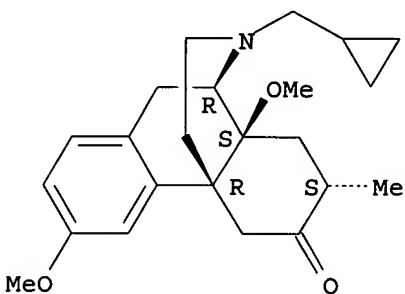
IT 85623-86-5P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
(Reactant or reagent)
(preparation and demethylation of)

RN 85623-86-5 CAPLUS

CN Morphinan-6-one, 17-(cyclopropylmethyl)-3,14-dimethoxy-7-methyl-,
(7 α)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



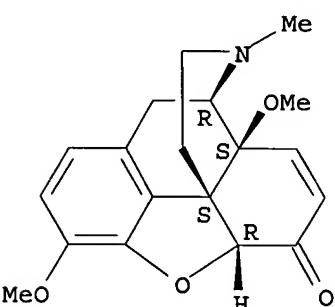
IT 38252-24-3P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
(Reactant or reagent)
(preparation and hydrogenation of)

RN 38252-24-3 CAPLUS

CN Morphinan-6-one, 7,8-didehydro-4,5-epoxy-3,14-dimethoxy-17-methyl-,
(5 α)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

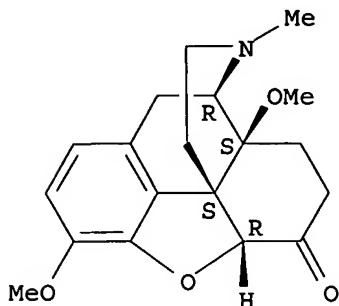


IT 85623-82-1P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
(Reactant or reagent)
(preparation and hydrogenolysis of)

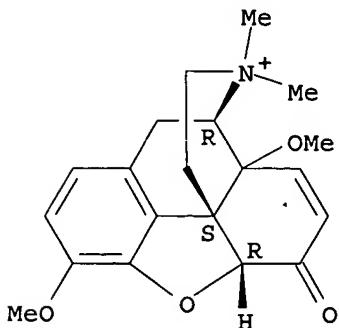
RN 85623-82-1 CAPLUS

Absolute stereochemistry.



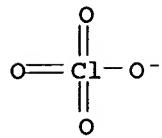
L4 ANSWER 144 OF 160 CAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 1971:406154 CAPLUS
 DOCUMENT NUMBER: 75:6154
 TITLE: Methanolysis of 14-bromocodeinone dimethyl acetal
 AUTHOR(S): Heinisch, G.; Klintz, V.; Vieboeck, Franz
 CORPORATE SOURCE: Pharm.-Chem. Inst., Univ. Wien, Vienna, Austria
 SOURCE: Monatsh. Chem. (1971), 102(2), 530-7
 CODEN: MOCHAP
 DOCUMENT TYPE: Journal
 LANGUAGE: German
 AB The products of methanolysis in the presence of Na₂CO₃ were 25% 7-methoxyneopinone dimethyl acetal (I), isolated as its methyl perchlorate, and 23% 14-methoxycodeinone dimethyl acetal. On heating dilute NaOH I underwent Hofmann degradation to 7-methoxyneopinone dimethyl acetal methine methyl perchlorate.
 IT 32392-03-3P 32392-04-4P 32470-91-0P
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (preparation of)
 RN 32392-03-3 CAPLUS
 CN 14 ξ -Morphinanium, 7,8-didehydro-4,5 α -epoxy-3,14-dimethoxy-17,17-dimethyl-6-oxo-, perchlorate (8CI) (CA INDEX NAME)
 CM 1
 CRN 47385-08-0
 CMF C20 H24 N O4

Absolute stereochemistry.



10/519,388

CRN 14797-73-0
CMF Cl O4

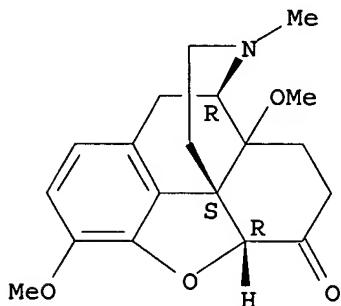


RN 32392-04-4 CAPLUS
CN 14 ξ -Morphinan-6-one, 4,5 α -epoxy-3,14-dimethoxy-17-methyl-, perchlorate (8CI) (CA INDEX NAME)

CM 1

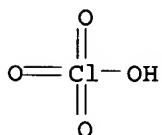
CRN 47316-08-5
CMF C19 H23 N O4

Absolute stereochemistry.



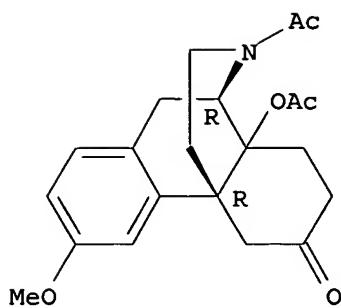
CM 2

CRN 7601-90-3
CMF Cl H O4



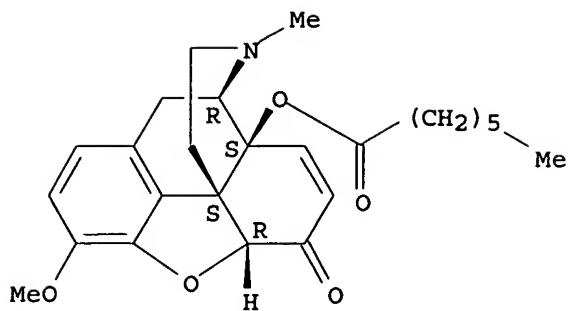
RN 32470-91-0 CAPLUS
CN 14 ξ -Morphinan-6-one, 7,8-didehydro-4,5 α -epoxy-3,14-dimethoxy-17-methyl- (8CI) (CA INDEX NAME)

Absolute stereochemistry.



L4 ANSWER 151 OF 160 CAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 1965:32465 CAPLUS
 DOCUMENT NUMBER: 62:32465
 ORIGINAL REFERENCE NO.: 62:5773b-e
 TITLE: The relation between analgesic activity, acute toxicity, and chemical structure in esters of 14-hydroxycodeinone
 AUTHOR(S): Buchett W. R.
 CORPORATE SOURCE: Pharm. Inds. Ltd., Edinburgh, UK
 SOURCE: Journal of Pharmacy and Pharmacology (1964), 16(Suppl.), 68-71
 CODEN: JPPMAB; ISSN: 0022-3573
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 AB The L.D.50 in mice for codeinone phosphate and 14-substituted hydroxycodeinones was calculated for the intravenous and intraperitoneal routes after administration of 0.2 mg./20 g. body weight. After intravenous administration, death occurred rapidly following convulsions, or catalepsy and respiratory depression. By the subcutaneous route, death occurred later. The acute toxicities decreased with a change from codeinone to 14-hydroxycodeinone and through the acetoxy to the propionoxy compound. By the intravenous route, increasing the C number (from the butyrate to the hexoate) increased the toxicity. Further increase up to lauroyloxy decreased the toxicities and further increase caused death by acute respiratory depression regardless of the route of administration. The 14-phenylalkoxy derivs. were more toxic intravenously than subcutaneously. Replacing the single bond between the methylene groups in the side chain with a double bond increased the acute toxicity and changed the mode of action. Esterification of 14-hydroxycodeinone enhanced the analgesic potency of the derivs. tested on mice. Increasing the length of the acylating group increased the potency, with maximum potency being obtained with 14-heptyloxycodeinone (60 times that of morphine hydrochloride). Further increases reduced the potency up to 14-lauroyloxycodeinone which had 1/30 the activity of morphine. The onset and duration of analgesia of these compds. were shorter than for either codeine or morphine.
 IT 62-58-8, Codeinone, 14-hydroxy-, heptanoate (ester)
 751-00-8, Codeinone, 14-hydroxy-, hydrocinnamate (ester)
 915-25-3, Codeinone, 14-hydroxy-, decanoate (ester)
 1107-74-0, Codeinone, 14-hydroxy-, octanoate (ester)
 1250-84-6, Codeinone, 14-hydroxy-, valerate (ester)
 1253-20-9, Codeinone, 14-hydroxy-, hexanoate (ester)
 (analgesic activity and toxicity of)
 RN 62-58-8 CAPLUS
 CN Morphinan-6-one, 7,8-didehydro-4,5-epoxy-3-methoxy-17-methyl-14-[(1-oxoheptyl)oxy]-, (5 α)- (9CI) (CA INDEX NAME)

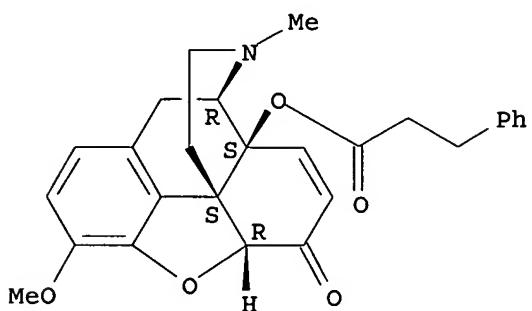
Absolute stereochemistry.



RN 751-00-8 CAPLUS

CN Morphinan-6-one, 7,8-didehydro-4,5-epoxy-3-methoxy-17-methyl-14-(1-oxo-3-phenylpropoxy)-, (5α)- (9CI) (CA INDEX NAME)

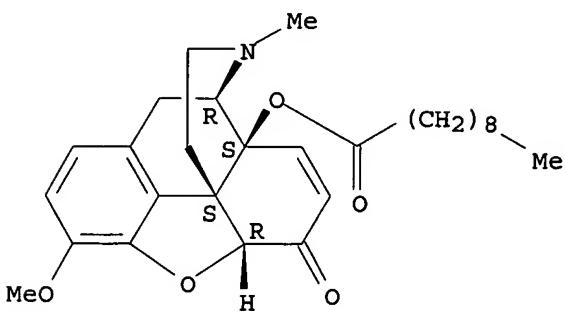
Absolute stereochemistry.



RN 915-25-3 CAPLUS

CN Morphinan-6-one, 7,8-didehydro-4,5-epoxy-3-methoxy-17-methyl-14-[(1-oxodecyl)oxy]-, (5α)- (9CI) (CA INDEX NAME)

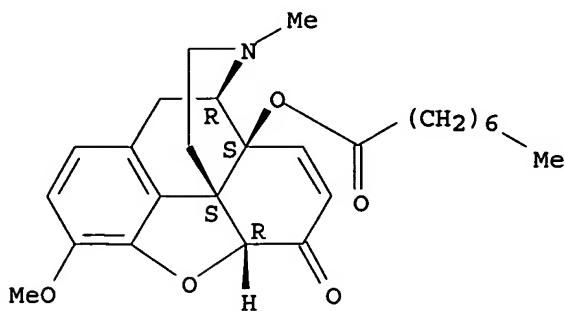
Absolute stereochemistry.



RN 1107-74-0 CAPLUS

CN Morphinan-6-one, 7,8-didehydro-4,5-epoxy-3-methoxy-17-methyl-14-[(1-oxooctyl)oxy]-, (5α)- (9CI) (CA INDEX NAME)

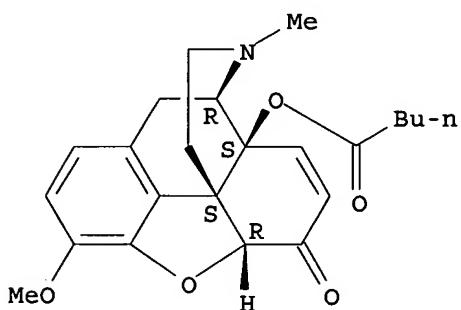
Absolute stereochemistry.



RN 1250-84-6 CAPLUS

CN Morphinan-6-one, 7,8-didehydro-4,5-epoxy-3-methoxy-17-methyl-14-[(1-oxopentyl)oxy]-, (5α)- (9CI) (CA INDEX NAME)

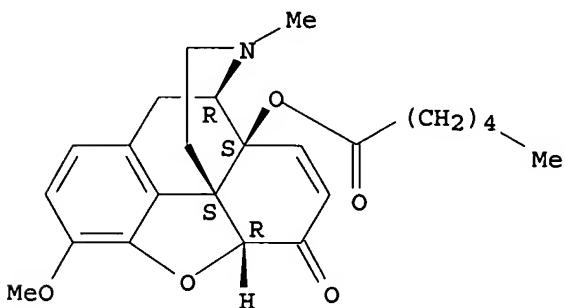
Absolute stereochemistry.



RN 1253-20-9 CAPLUS

CN Morphinan-6-one, 7,8-didehydro-4,5-epoxy-3-methoxy-17-methyl-14-[(1-oxohexyl)oxy]-, (5α)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L4 ANSWER 152 OF 160 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1965:15438 CAPLUS

DOCUMENT NUMBER: 62:15438

ORIGINAL REFERENCE NO.: 62:2802c-g

TITLE: 14-Hydroxynorcodeine derivatives and their production
INVENTOR(S): Currie, Andrew C.; Newbold, Geoffrey T.; Spring, Frank S.

PATENT ASSIGNEE(S): Edinburgh Pharmaceutical Industries Ltd.

SOURCE: 4 pp.

DOCUMENT TYPE: Patent

US 3158617	1964	US	
US 3230224	1966	US	
PRIORITY APPLN. INFO.:		JP	19620406

OTHER SOURCE(S): MARPAT 61:18191

GI For diagram(s), see printed CA Issue.

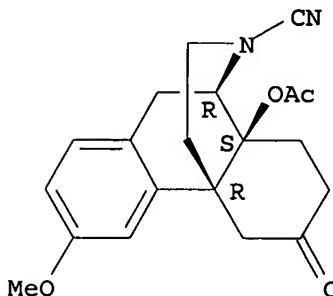
AB To a solution of (+)-3-methoxy-4-phenoxy-N-methylmorphinan in CHCl₃, a suspension of BrCN in CHCl₃ was added during 20 min., and the mixture refluxed 2 hrs. to give 70% (+)-3-methoxy-4-phenoxy-N-cyanomorphinan, which was refluxed 10 hrs. with 15% HCl to give 80% (+)-3-methoxy-4-phenoxy morphinan; HCl salt m. 204-6°; HBr salt m. 105°.
 (+)-3-Methoxymorphinan [hydrochloride m. 260-2°, [α]28D
 23.2° (H₂O)] was prepared similarly in 80% yield. The intermediate, (+)-3-methoxy-N-cyanomorphinan, m. 90-3.5°, [α]25D
 142.9° (EtOH). 3-Methoxy-N-cyanomorphinan, m. 93-4°,
 [α]18D -142.3° (MeOH), prepared in 70% yield, gave 85%
 (-)-3-methoxymorphinan, hydrobromide m. 282°, [α]19D
 -19.8° (MeOH). (-)-3-Methoxy-6-oxo-14-hydroxy-N-
 cyanomorphinan, m. 209-10°, [α]25D -198° (CHCl₃),
 prepared in 30% yield, gave (-)-3-methoxy-6-oxo-14-hydroxymorphinan (I)
 tartrate m. 211-12° (decomposition), [α]21D -31° (CHCl₃).
 The starting product, (-)-3-methoxy-6-oxo-14-hydroxy-N-methylmorphinan was
 prepared from thebaine. A solution of (-)-3-methoxy-6-oxo-14-acetyloxy-N-
 cyanomorphinan (m. 263-4°) in a mixture of NaOH, H₂O, and MeOH was
 refluxed 2.5 hrs. to give 60% (-)-3-methoxy-6-oxo-14-hydroxy-N-
 acetyl morphinan (II) and 35% I. A mixture of (-)-3-methoxy-6-oxo-14-
 acetyloxy-N-methylmorphinan and BrCN heated in a sealed tube in a water
 bath during 5 min. gave 70% (-)-3-methoxy-6-oxo-14-acetyloxy-N-
 cyanomorphinan, m. 263-4° (decomposition), [α]25D -176°
 (CHCl₃), which was refluxed 6 hrs. with 25% H₂SO₄ to give 25% I and 70%
 II, m. 196-7°.

IT 1531-13-1, Morphinan, N-cyano-14-hydroxy-3-methoxy-6-oxo-,
 acetate, (-)-
 (preparation of)

RN 1531-13-1 CAPLUS

CN Morphinan-17-carbonitrile, 14-(acetyloxy)-3-methoxy-6-oxo- (9CI) (CA
 INDEX NAME)

Absolute stereochemistry.



L4 ANSWER 155 OF 160 CAPLUS COPYRIGHT 2006 ACS on STN
 ACCESSION NUMBER: 1964:406898 CAPLUS
 DOCUMENT NUMBER: 61:6898
 ORIGINAL REFERENCE NO.: 61:1119f-g
 TITLE: Analgesic properties of some 14-substituted derivatives of codeine and codeinone
 AUTHOR(S): Buckett, W. R.; Farquharson, Muriel E.; Haining, C. G.
 CORPORATE SOURCE: Edinburgh Pharm. Ind. Ltd., UK
 SOURCE: Journal of Pharmacy and Pharmacology (1964), 16,
 174-62

CODEN: JPPMAB; ISSN: 0022-3573

DOCUMENT TYPE:

Journal

LANGUAGE:

Unavailable

AB The effects of 14-hydroxylation and subsequent 14-acylation on the toxicity and analgesic activity of codeine, codeine 6-acetate, codeinone, and Δ^7 deoxycodeine were examined in rats and mice. Acute toxicity was reduced in each instance by the introduction of a 14-hydroxy group and was not generally enhanced by its esterification. 14-Acetoxycodeine was approx. equal to morphine in potency and esterification at the 14-position of hydroxycodeine with other straight-chain aliphatic acids containing up to 5 C atoms failed to enhance potency further. 14-Benzolation of either 14-hydroxycodeine or 14-hydroxycodeinone had little effect on analgesic activity but the introduction of a methylene group between the carboxyl group and the phenyl ring enhanced potency considerably in each case. Increasing the number of C atoms from 2 to 5 in the 14-acyl groups of esters of 14-hydroxycodeinone and 14-hydroxy- Δ^7 -deoxycodeine led to a gradual increase in analgesic activity. In rats the n-valeryl ester of 14-hydroxy- Δ^7 -deoxycodeine was estimated to have 75 times the potency of morphine.

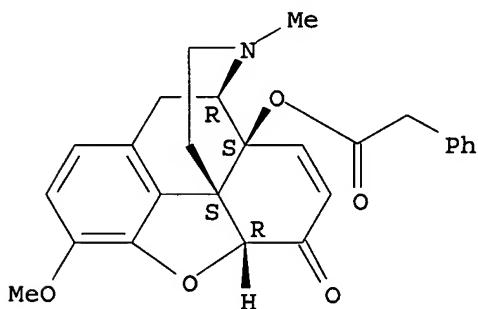
IT 750-54-9, Codeinone, 14-hydroxy-, phenylacetate(ester)

1250-84-6, Codeinone, 14-hydroxy-, valerate (ester)
(analgesic activity of)

RN 750-54-9 CAPLUS

CN Morphinan-6-one, 7,8-didehydro-4,5-epoxy-3-methoxy-17-methyl-14-[(phenylacetyl)oxy]-, (5 α)- (9CI) (CA INDEX NAME)

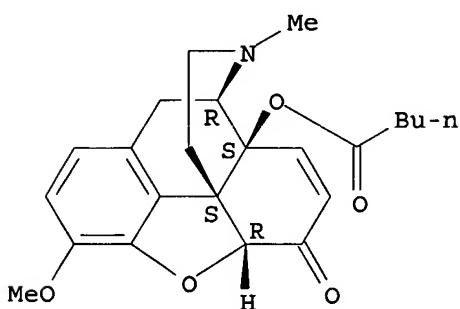
Absolute stereochemistry.



RN 1250-84-6 CAPLUS

CN Morphinan-6-one, 7,8-didehydro-4,5-epoxy-3-methoxy-17-methyl-14-[(1-oxopentyl)oxy]-, (5 α)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



10/519,388

ACCESSION NUMBER: 1963:415846 CAPLUS
DOCUMENT NUMBER: 59:15846
ORIGINAL REFERENCE NO.: 59:2885f-h
TITLE: 14-Acyloxycodeinones
INVENTOR(S): Spring, Frank S.; Haining, Colin G.; Newbold, Geoffrey T.
PATENT ASSIGNEE(S): T. & H. Smith Ltd.
SOURCE: 2 pp.
DOCUMENT TYPE: Patent
LANGUAGE: Unavailable
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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GB 919313		19630220	GB 1961-82661	19581028
PRIORITY APPLN. INFO.:			GB	19581028

GI For diagram(s), see printed CA Issue.

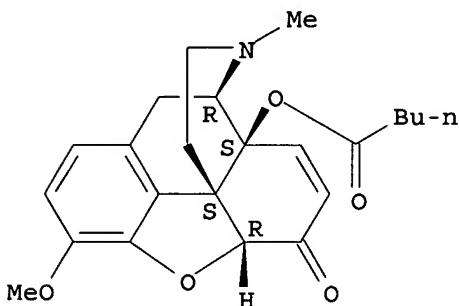
AB The title compds. were prepared by the direct acylation of 14-hydroxocodeinone (I). Thus, 2.0 g. I was heated with 10 cc. (PrCO)2O on a steam bath with occasional shaking, the solution was then warmed with H2O to destroy excess (PrCO)2O, cooled with ice, and basified with 0.880N NH4OH to provide a crude product, which was crystallized from C6H6-petr. ether to give 1.7 g. 14-propionoxycodeinone, m. 182-3°, [α]17D -91° (c 1.3, CHCl3). Similarly prepared were: 14-butyryloxycodeinone, m. 152.0-3.5°, [α]17D -89° (c 2.0, CHCl3); 14-valeryloxycodeinone (II), m. 133-4°, [α]17D -80° (c 3.6, CHCl3). II was also prepared by acylating I with BuCOCl, m. 133-4°, [α]17D -77° (c 1.0, CHCl3).

IT 1250-84-6, Codeinone, 14-hydroxy-, valerate (ester)
(preparation of)

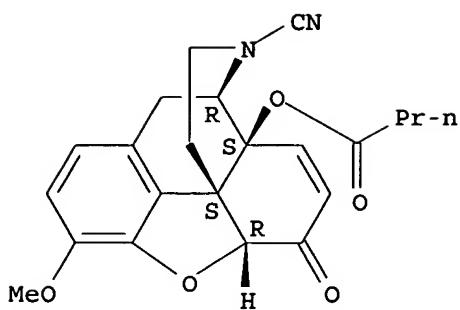
RN 1250-84-6 CAPLUS

CN Morphinan-6-one, 7,8-didehydro-4,5-epoxy-3-methoxy-17-methyl-14-[(1-oxopentyl)oxy]-, (5α)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



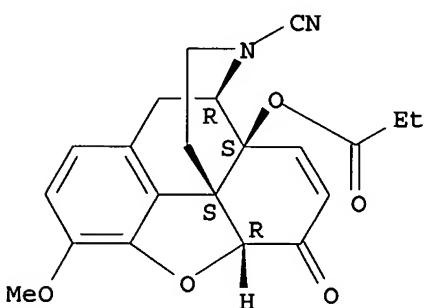
L4 ANSWER 157 OF 160 CAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1963:414867 CAPLUS
DOCUMENT NUMBER: 59:14867
ORIGINAL REFERENCE NO.: 59:2589h,2590a-c
TITLE: Gas chromatography of the morphine alkaloids and the related compounds
AUTHOR(S): Yamaguchi, Sadao; Seki, Isao; Okuda, Shigenobu; Tsuda, Kyosuke
CORPORATE SOURCE: Sankyo Co. Ltd., Tokyo
SOURCE: Chemical & Pharmaceutical Bulletin (1962), 10(8), 755-7
CODEN: CPBTAL; ISSN: 0009-2363



RN 102113-53-1 CAPLUS

CN Morphinan-17-carbonitrile, 7,8-didehydro-4,5-epoxy-3-methoxy-14-(1-oxopropoxy)-, (5 α)- (9CI) (CA INDEX NAME)

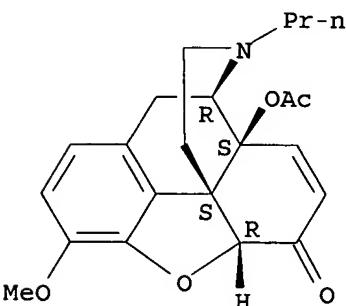
Absolute stereochemistry.



RN 103458-72-6 CAPLUS

CN Morphinan-6-one, 14-(acetyloxy)-7,8-didehydro-4,5-epoxy-3-methoxy-17-propyl-, (5 α)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L4 ANSWER 160 OF 160 CAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1961:43372 CAPLUS

DOCUMENT NUMBER: 55:43372

ORIGINAL REFERENCE NO.: 55:8449a-f

TITLE: 14-Hydroxydihydronormorphinone

AUTHOR(S): Seki, Isao

CORPORATE SOURCE: Sankyo Shinagawa Factory, Tokyo

SOURCE: Takamine Kenkyusho Nenpo (1960), 12, 56-62

CODEN: TKNEAI; ISSN: 0371-8670

DOCUMENT TYPE: Journal

LANGUAGE: Unavailable

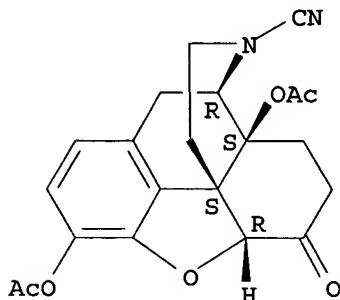
AB 14-Hydroxydihydrocodeinone (I) (52.4 g.) is heated with 153.7 g. C5H5N.HCl. In a N stream, the mixture is cooled, 500 cc. H₂O added, the whole made only weakly acid with 30% KOH, and washed with CHCl₃. A small amount of NaHSO₃ is added to the aqueous layer, the whole adjusted to pH more than 12.0 with 30% KOH, and washed with CHCl₃. The aqueous layer is made acid, treated with active C, adjusted to pH 8.8 with 25% NH₄OH, and extracted with CHCl₃ to give 30.7 g. 14-hydroxydihydromorphinone (II), m. 244-6° (EtOH). II (30 g.) is shaken with 90 cc. Ac₂O 10 min. at 90°, poured into 500 cc. H₂O, adjusted to pH 8.0 at 20°, and the mixture filtered to give 30 g. 3,14-diacetoxydihydromorphinone (III), m. 214-15° (EtOH). II (1.0 g.) is refluxed 6 hrs. with 1 g. AcONa in 10 cc. Ac₂O, the mixture added to 60 cc. ice H₂O, the whole adjusted to pH 4.0, decolorized with active C, and adjusted to pH 7.0 to give 0.9 g. 3,14-diacetoxydihydromorphinone enol acetate, m. 189.5-90.5° (CHCl₃-EtOH). III (30 g.) in 180 cc. CHCl₃ is heated 5 hrs. with 30 g. 35% BrCN-CHCl₃ solution on a steam bath to give 19.8 g. N-cyano-3,14-diacetoxydihydronormorphinone (IV), m. 230-3°. IV (6 g.) is boiled 5 hrs. with 60 cc. 25% H₂SO₄, the mixture adjusted to pH 5.0 with NH₄OH under ice-cooling, treated with active C, a small amount of NaHSO₃ added, and the whole adjusted to pH 9.0 to give 4.25 g. 14-hydroxydihydronormorphinone (V), m. 310-13° (decomposition), hydrochloride m. 345-50° (decomposition). Reaction of V with phenyltrimethylammonium hydroxide gives I and II. A reaction mixture of 8.3 g. phenyltrimethylammonium chloride and 2.7 g. KOH are added at below 15° to a solution of 10 g. normorphine in 30 cc. PhMe, the whole heated 2.5 hrs., 10 cc. H₂O and 2.1 cc. AcOH added, the mixture is distilled with steam, the residual solution decolorized, adjusted to pH 12.0, and extracted with CHCl₃ to give codeine, m. 145-52°. The aqueous layer extracted with CHCl₃ and adjusted to pH 9.0 gave 3.8 g. morphine. N-Cyano-14-acetoxydihydronorcodeinone (9.3 g.), prepared from I, is boiled 5 hrs. with 90 cc. 25% H₂SO₄, the whole adjusted to pH 9.0 with ice cooling, extracted with CHCl₃, and the extract chromatographed on alumina to give 6.95 g. 14-hydroxydihydronorcodeinone, microneedles, m. 310° (decomposition).

IT 71424-42-5, Normorphinone, N-cyanodihydro-14-hydroxy-, diacetate
(preparation of)

RN 71424-42-5 CAPLUS

CN Morphinan-17-carbonitrile, 3,14-bis(acetyloxy)-4,5-epoxy-6-oxo-, (5α)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



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(FILE 'HOME' ENTERED AT 15:00:29 ON 24 APR 2006)

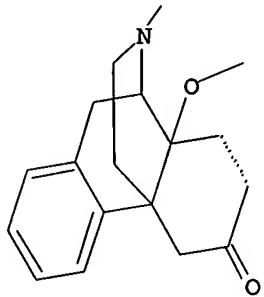
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L1 STRUCTURE UPLOADED
L2 34 S L1
L3 626 S L1 FULL

FILE 'CAPLUS' ENTERED AT 15:01:27 ON 24 APR 2006
L4 160 S L3

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L1 HAS NO ANSWERS
L1 STR



Structure attributes must be viewed using STN Express query preparation.

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